

## ICSE Paper 2016 Home Science

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### General Instructions:

- Answers to this paper must be written on the paper provided separately.
  - You will not be allowed to write during the first 15 minutes.
  - This time is to be spent in reading the question paper.
  - The time given at the head of this Paper is the time allowed for writing the answers.
  - Attempt all questions from Section A and any four questions from Section B.
  - The intended marks for questions or parts of questions are given in brackets ( ).
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### Section – A [40 Marks] (Attempt all questions from this section)

#### Question 1.

(a) Define a triad colour scheme. (2)

#### Answer:

Any three hues equidistant from one and other on the colour wheel are called triad colour scheme.

#### Example:

- Primary colours: Red, Blue, Yellow.
- Secondary colours: Green, Purple, Orange.
- Intermediate colours: Blue-Green, Yellow-Orange.

(b) State any two ways of taking care of carpets. (2)

#### Answer:

1. Use brush for cleaning the carpet.
2. Always do brushing on one side and stroke the pile so that the dirt can be easily removed.

(c) What do you mean by a work triangle? (2)

#### Answer:

Designers use the work triangle for the efficient use of kitchen. The three edges of the triangle are:

1. Storage centre
2. Preparation and mixing centre
3. Cooking stove centre

These three major units – Fridge, sink and cooking stove should ideally in a triangular arrangement to facilitate handling by the housewife.

The work triangle among these three centre should not be less than 15 feet and more than 22 feet.

(d) Name any two sources of light in a house. (2)

**Answer:**

The two sources of light are :

1. Sunlight
2. Artificial lights – Flourocent tubes, LED bulbs.

(e) Name any two types of family budget. (2)

**Answer:**

1. Surplus Budget: These are those families whose income is more than expenditure can save extra amount of money.
2. Balanced Budget: Those families whose income and expenditure are almost the same. They hardly have any money to save.

**Question 2.**

(a) State any two characteristics of a cheque. (2)

**Answer:**

Characteristics of a cheque: Following are the characteristic of a cheque :

1. A written investment: Should be written or typed. Bankers do not accept cheques written in pencil.
2. Signature of the drawer: It must be signed by the drawer and his/her signature should be matched with the specimen signature.
3. Order: It is an order which is given by the drawee.

(b) Why is sorting of clothes an important step in the laundering process? (2)

**Answer:**

Sorting of clothes is necessary in the laundering process due to following reasons :

1. To protect the cloth from damage like tearing.
2. To decrease the chance that a garment is going to bleed over the other.
3. To increase better and more efficient washing and drying.

(c) List any two characteristic of the children's peer group during late childhood. (2)

**Answer:**

1. The attitudes are developed and the values are recognized as the peer group friends do.
2. This group provides an opportunity to understand the values of discipline i. e., rules and regulations and restrictionals impose upon a child.

(d) Define the term "Menarche". (2)

**Answer:**

Menarche is the first menstrual cycle or onset of menstruation in girls. This indication shows that the girl has reach puberty and is now capable of conceiving and bearing children.

(e) List any two uses each of calcium and iron in the adolescent diet. (2)

**Answer:**

Uses of Calcium:

1. It is used in the diet of an adolescent for the growth of skeleton and teeth.
2. It is also used for other physiological functions.

**Uses of Iron:**

1. It is essential for body tissues and blood.
2. Onset of menstrual cycle in girls also increases the requirement of iron in the body of girls.

**Question 3.**

(a) Define the term 'meal planning'. (2)

**Answer:**

Meal planning is defined as 'the implementation of the principles of nutrition in one's daily diet in an appetizing way'.

(b) Name any two adolescent eating disorders. (2)

**Answer:**

Two adolescent eating disorders are :

1. Bulimia nervosa
2. Anorexia nervosa.

(c) State any two factors affecting the safety of food at home. (2)

**Answer:**

Two factors which affect the safety of the food in home are :

1. Cleanliness of the kitchen: Kitchen should be properly clean and free from germs.
2. Hygienic handling of food: Food should be properly handled i.e., should be covered properly to avoid the entry of germs.

(d) Sugar is hygroscopic in nature. Explain. (2)

**Answer:**

When sugar is exposed to air it absorbs moisture present in the air. This explains that sugar is hygroscopic in nature.

(e) Give two precautions to be followed while drying of woollen garments. (2)

**Answer:**

1. Dry the woollen on a paper that already has their outline. It ensure that the clothes are not deshaped
2. Dry the woollen garments in shade.
3. Press in towel to remove water.

**Question 4.**

(a) Suggest any two precautions to be taken during the blueing process. (2)

**Answer:**

1. Fabrics should not be dipped for a long time in the blue water otherwise patches will appear.
2. Blued fabrics should be dried in sunlight.

(b) Define the term "food adulteration". (2)

**Answer:**

Food adulteration is the act of intentionally debasing the quality of food by mixing the substances which are injurious to the health or by removing the some valuable ingredients.

(c) List any two standardization marks. (2)

**Answer:**

The two standardization marks are FPO and Agmark.

(d) Why should eggs not be washed before storing? (2)

**Answer:**

Before storing, eggs should not be washed just because eggs contain pores in its shell which are usually filled with organic materials. When we wash eggs such organic materials get washed off and cause the opening of such pores this give way to the microorganisms to attack on it.

(e) Differentiate between perishable and non-perishable food? (2)

**Answer:**

<b>Perishable Food</b>	<b>Non-Perishable Food</b>
Foods which cannot be stored for more than 2-3 days under normal temperature conditions such as fish, milk and .milk products, meat and many others Cooked vegetables are also included in this group.	Foods which can be store for longer time. Such foods are cereals, sugar, coffee, salt consitute etc.

**Section – B [60 Marks]**

(Attempt any four questions from this section)

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**Question 5.**

“Colour and light are an important part of our daily life.” In this context discuss the following :

(a) Three dimensions of colour. (5)

**Answer:**

Three dimensions of colour: The three dimensions of colour are basically value, hue and intensity.

1. Value: A colour's lightness and darkness is known as value. On the colour wheel, the basic colours can be lightened to pale tints and darkened to nearly black shades. Basically, there are total nine value steps.
2. Hue: It is simply the colour quality that has been given a technical name for its identification.
3. Intensity: It refer to the brightness and dullness of a colour.

(b) Factors to be considered while choosing curtains for the home. (5)

**Answer:**

While choosing curtains for the home, the following factors should always be kept in mind :

1. If you have small rooms, it can also give the effect of being large if curtain blend with walls.
2. You should use plain curtains in those room which have more patterns. Plain curtain can also be used in those rooms which contains pictures and also have pattern in furniture.
3. If there are too many windows in a room, the pattern of curtains should be less striking. Bold prints provide a masculine look while small patterns gives a feminine look.

(c) Choice of lighting in various rooms of the house. (5)

**Answer:**

Choice of light in various rooms of the house: Proper day light in the morning and other manmade i.e., artificial fights enhances the beauty and design in a house. It also create a living and healthy environment.

Choice of light in various rooms:

- In bedroom: One tube fight may be placed at the top of the dressing table mirror. Study table may have a separate lamp. Bathroom also needs a ceiling as well as a minor fight.
- In living room: In living and family rooms, use general fights for entering and watching T. V, fighting to highlight art work, plants and other items.
- In kitchen: It should be well lighted, wall fights over the working places, tube fights fixed under the cabinets and over the cooking area.

**Question 6.**

"Management of money is an important aspect of home science".

In this context explain the following:

(a) The procedure of opening a saving account. (5)

**Answer:**

Procedure of opening a saving account: If you want to open a saving account, firstly you have to go to a bank. Get a form of opening a bank account from the accountant, fill that form. This form include a specimen signature, this is very important. Because every time when you fill a cheque or a withdrawal form to draw out money from the bank your sign will be matched before giving you money.

What you need to open a bank/saving account are listed below:

- Fill the prescribed form
- Specimen signature card
- Address verification proof
- Two copies of passport size photograph
- Deposit slip
- Cash money (Min. – ₹ 500)
- Pan card

Passbook is given after a week of opening the account. This passbook contains your money transaction details. A cheque book is also given to you. You can make a cheque payment by filling the columns given and signing the cheque.

(b) A fixed deposit account and its advantages. (5)

**Answer:**

Fixed Deposit Account: Deposits which are made for a specified period and whose amount cannot be withdrawn before the expiry. These deposits are repayable, but only after the expiry of a fixed period such as one year, 5 year etc. Fixed deposits are also known as long-term deposits. For such long-term investment, higher rate of interest is offered. Large the time period of the deposits higher will be the rate of interest.

Importance:

1. These are very flexible in nature.
2. Fixed deposits offers guaranteed returns. The interest rate is also higher.

(c) Importance of budgeting. (5)

**Answer:**

Importance of Budgeting: Basically, budgeting is an art and science of planning income and expenditure.

- Budgeting helps one to live within one's income.

- Budgeting allow a person to regulate his funds rather than his money.
- It also ensure that the spending of a person is not greater than his income.
- It also helps us to save money for our future.
- It also make us free from future worries related to money.
- Budgeting also helps us to see how best we can use our money to attain our goals which are very much important for us.

**Question 7.**

“Adolescence is a period of transition.”

In this context answer the following:

(a) Role of the endocrine glands. (5)

**Answer:**

Role of endocrine glands: The endocrine system is made-up of glands which regulate and secrete hormones. Endocrine glands are also known as Ductless glands because these have not special ducts.

Hormones are the chemical messenger of the body. Hormones regulate the growth, metabolism, sexual development and other functions of the body. Thyroid, Adrenals, Pituitary, Hypothalamus and Reproductive organs are the major glands of the endocrine system.

Reproductive organs play important role in secreting sex hormones. Sex hormones are responsible for the sexual growth and other physical development. Pancreas is also an important part of this system because it has great role in hormone production and in digestion also.

(b) State any five factors that lead to conflict between adolescent and their parents. (5)

**Answer:**

1. We know that adolescence is the most challenging and also complicating time of life.  
Because in this time many physical, mental and other psychological changes occurs. This is the time when an adolescent think that he can take his own decision mean want to be independent. This thing leads to a conflict between the adolescent and his parents.
2. Generally, conflict increase when the child reach the puberty level. The child want to be self independent and do not want any type of guidance from his parents.
3. The peer groups are also responsible in creating conflicts.
4. Being alone the child become quite moody which also result in a conflict.
5. Interference from the family.



(c) State measures to prevent body odour. (5)

**Answer:**

Measures to prevent body odour: To avoid the body odour following measure should be done :

1. Wear clean and cotton undergarments to prevent excessive sweating.
2. Clean the area around your private parts with anti-bacterial soap.
3. Regularly take bath twice.
4. Drink plenty of water.
5. You can also use the perfumes or deos. But these are the artificial method. It does not clean your body. It only suppress the bad odour.  
Regular bathing is the best measure to prevent body odour.

**Question 8.**

(a) Discuss the need for adequate nutrition and a balanced diet for the elderly. (5)

**Answer:**

Adequate nutrition and a balanced diet is very much important in the old age to prevent and control hazards and bad effects of ageing. Obesity, diabetes, constipation, cardiovascular diseases are the major diseases in old ages.

Hence, good nutrition is very important during old age. Special care should be taken that the diets of the elderly are nutritionally adequate and well balanced. You should know or have the knowledge that the elderly people require less calories.

Few factors always be kept in mind while you are planning balanced diet for the elderly people.

- Provide them liberal amounts of food products like as milk, fresh fruits, green vegetables.  
These kinds of food provide them vitamins and other minerals.
- Adequate consumption of calcium should be ensured to make the bones strong in old age too.
- Scientists also gave emphasis on the importance of water in the diet of the elderly persons for the better functioning of kidneys.
- The diet should be soft and well cooked and it should also include those foods which need a little or no mastication. Because at old age maximum people lose their teeth. So they need soft food.
- Intake of sweets, fried, high fat foods should be reduced at minimum. Because the elderly people feel difficulty to digest such kind of food.  
A proper diet, exercise and a pleasant environment are necessary for a healthy and long life of our elders.

(b) Describe any five factors affecting meal planning. (5)

**Answer:**

Factors affecting meal planning: Meal planning is a very complex job. Many factors that influence meal planning are there. Meal planning is mainly influenced by factors like age, sex, likes and dislikes, physical needs etc.

1. Age: Age is the main factor which broadly affect the meal planning. The composition and quality of food is affected with age. For example, babies only need mother's milk. As the babies grow they start eating food products. Older people need less calorie food.
2. Sex: Diet change according to the sex. Men generally eat more than the women. The difference is just due to the fact that men having the higher metabolic rate than the women.
3. Likes and Dislikes: Personal likes and dislikes mainly influence food intake. While planning diet this thing should be in our mind. Carefully develop good eating habit in the children.
4. Physical needs: In a family, there are different members having different ages, so nutritional requirements of such people should also be kept in mind while planning a diet.

(c) Explain the five food groups and their nutritional contribution. (5)

**Answer:**

Food groups: Food group is a collection of varieties of foods which share similar nutritional properties.

In the food grouping, food items are generally classified on the basis of their nutrients.

The five major food groups and their nutritional contributions are:

Food Groups	Main Nutrients
<b>1. Cereals, Grains and Products :</b> Rice, wheat, bajra, maize, jowar, wheat flour etc.	Energy, protein, fat, vitamin B <sub>1</sub> , vitamin B <sub>2</sub> , folic acid, iron, fibre etc.
<b>2. Pulses and Legumes :</b> Bengal gram, Blackgram, Green gram, Lentil, cowpea, peas, rajma, soyabeans etc.	Energy, protein, fat, vitamin B <sub>1</sub> , vitamin B <sub>2</sub> , folic acid, iron, fibre, calcium etc.
<b>3. Milk and Meat Products :</b> Milk, curd, skimmed milk, cheese. Chickenliver, fish, eggs, meat.	Protein, fat, vitamin B <sub>2</sub> , Calcium, Vitamin A.  Protein, fat vitamin B <sub>2</sub> , vitamin A, vitamin B <sub>12</sub>
<b>4. Fats and Sugars</b> <b>Fats :</b> Butter, ghee, hydrogenated oils, cooking oils, like groundnut, mustard, coconut oil. <b>Sugars :</b> Sugar Jaggery	Energy, fat.  Energy.
<b>5. Fruits and Vegetables :</b> <b>Fruits :</b> Mango, guava, tomato ripe, papaya, orange, sweet lime, watermelon. <b>Vegetables :</b> (green leafy) Amaranth, spinach, gogu, drumstick leaves, coriander leaves, mustard leaves, fenugreek leaves.	Carotenoids, vitamin C, fibre, carbohydrates etc.  Fats, carotenoids, vitamin B, folic acid, calcium, iron, fibre.

**Question 9.**

“Laundering is a combination of cleaning and finishing.” In this context explain the following:

(a) Household method of laundering a white cotton shirt. (5)

**Answer:**

Following are the methods of laundering a white cotton shirt.

1. Preparation: Here, you have to firstly examine the white shirt for any tears, hole, dirt particles, stain etc.
2. Steeping; Overnight soak the white shirt if it is very much dirty but if it is less dirty you can soak it for 1 hour. Do not soak the coloured garments with the white ones.
3. Washing: We know that cotton is a strong fibre and it become more stronger when it is wet. Cotton is mainly washed by scrubbing or rubbing method.

4. Rinsing: To remove the soap and other impurities rinse two or three time in clean, running tap water.
5. Starching and Blueing: Blueing is done for white cotton shirts only. Both these processes are done in a combined way to save time.
6. Drying: Shirt should be dried on hangers.
7. Ironing: Cotton fabric should be ironed properly.

(b) Advantages of using detergent over soaps. (5)

**Answer:**

Advantages of detergents over soaps :

1. Detergents are cheaper than soaps.
2. Detergents are efficient in hard water too.
3. They are easy to rinse.
4. Surface tension of detergent is low. So they have more efficiency than soaps.
5. Detergents are soluble even in cold water.

(c) Storage of clothes. (5)

**Answer:**

Storage of clothes :

- Cotton clothes: (i) Do not store moist clothes, they invite fungus.  
(ii) Put some deodorant among the stored clothing to avoid the smell, (musty)
- Silk clothes: (i) Store dry clothing only.  
(ii) Avoid use of mothballs because they reduce the lustre of zari.
- Wool clothes: (i) Store totally dry woollens.  
(ii) Use neem leaves, nephtha balls to prevent the damage by moths.

**Question 10.**

Write the short note on the following :

(a) The role of consumer education. (5)

**Answer:**

Role of consumer education: Consumer education develops critical awareness and other living skills. Consumer education mainly aims at making consumer aware about what, when, where, how and how much to buy. Consumer education assists the buyer in wise selection of goods to meet family requirements. It helps in the following way:

It helps a person to develop the ability to choose and decide things intelligently. It motivate the consumer to demand safe, reliable and quality products at a fair price. It also aware the consumer about his rights and responsibilities.

It also suggest the various ways which a consumer can choose when he face a problem.

(b) State any five problems faced by consumers. (5)

**Answer:**

Problems faced by consumers: A consumer faces many problems ranging from variation in price to malpractices followed by the shopkeepers.

1. Variation in price: You may also find the price of some product vary from shop to shop. This always confuse a consumer whether he paid a right price for the product or the shopkeeper cheat him. At some shops the price of some commodities are higher than the others. It can be due to the following :
  - Shopkeeper is making high profit.
  - Consumers can pay high prices for those goods which are not easily available.
2. Poor quality: One is often faced with such kind of problem of identifying a genuine product among the duplicate products.
3. Adulteration: It indicates addition or removal of any substance from the original products in order to lower the quality of food stuff.
4. Misleading advertisement: It is a forceful tool of persuading and influencing the judgement of the consumer. In advertisement, the product is so attractively advertised that the consumer gets confused to purchase that.
5. Non-availability of goods: Sometimes the shopkeeper hoard commodity (ies) and create artificial shortage of that product. This result that the consumers have to pay more for that necessary things like rice, wheat, pulses. The consumers face a lot of difficulty in inconvenience.

(c) Kesari dal (Lathyrus sativus) and its ill effects. (5)

**Answer:**

Kesari Dal (Lathyrus sativus): This is a staple food which is often mixed with the other pulses. This is found in Madhya Pradesh, Uttar Pradesh, Bengal and Bihar.

Ill effects: If any person consume high or excessive amount of Kesari Dal can suffer with a form of paralysis. It mainly occurs in boys and men in the age of 5-45 years. The disease starts with stiffness of the knee joints and legs with pain around the knee and ankle joints within 10 to 30 days. The person suffer from this disease becomes crippled as his knees gets bent and stiff.